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1-7

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/527,757	03/10/2005	Christian Schott	6305-0010WOUS	3200
35301 7590 07/12/2007 MCCORMICK, PAULDING & HUBER LLP CITY PLACE II 185 ASYLUM STREET HARTFORD, CT 06103			EXAMINER CHIU, TSZ K	
			ART UNIT 2822	PAPER NUMBER
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	Application No. 10/527,757	Applicant(s) SCHOTT ET AL.	
	Examiner Tsz K. Chiu	Art Unit 2822	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 25 April 2007.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 12-26 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 12-26 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### DETAILED ACTION

The examiner incorrectly rejected the claims under 102(e) in the previous Office action. However, Popovic et al. should have been applied under 35 USC § 102(b), since the filing date of the reference is more than one year prior to the filing date of this application.

No new rejections have been made in this Office action.

#### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 12-26 are rejected under 35 U.S.C. 102(b) as being anticipated by Popovic et al. (4829352)

The applied reference has a common inventor with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

With respect to claim 12, Popovic discloses a Hall element (Figure 6) that has two inner and two outer contacts (9,10, 8 and 11, For example Fig. 6) arranged along a straight line, wherein the two inner contacts (9 and 10, For example Fig. 6) are the

Art Unit: 2822

same width and wherein the two outer contacts (8 and 11, For example Fig. 6) are the same width, wherein the contacts are arranged on a surface of a well (2,3, For example Fig. 6) of a first conductivity type that is embedded in a substrate of a second conductivity type and wherein the two outer contacts (8 and 11, For example Fig. 6) are connected by a resistor (internal resistor when connected the electrode a2 and c2 , For example Fig. 6).

With respect to claim 13, Popovic discloses wherein the resistor (internal resistor when connected the electrode a2 and c2 , For example Fig. 6) is formed by a well (2,3, For example Fig. 6) of the first conductivity type.

With respect to claim 14, Popovic discloses wherein the resistor is formed in the well (2,3, For example Fig. 6) of the Hall element (Figure 6) and has a contact arranged next to one of the two outer contacts (8 and 11, For example Fig. 6) of the Hall element (Figure 6) on a side facing an adjacent edge of the well (2,3, For example Fig. 6) .

With respect to claim 15, Popovic discloses wherein the resistor is formed in the well (2,3, For example Fig. 6) of the Hall element (Figure 6) and has two contacts that are each arranged next to one of the outer contacts of the Hall element (Figure 6) on a side facing an adjacent edge of the well (2,3, For example Fig. 6), the two contacts of the resistor being connected via a conductor path.

With respect to claim 16-19, Popovic discloses wherein at least one electrode (a2, For example Fig. 6) electrically insulated from the well (2,3, For example Fig. 6) is arranged between two contacts.

With respect to claim 20, Popovic discloses wherein the contacts are arranged on a surface of a well (2,3, For example Fig. 6) of a first conductivity type that is embedded in the substrate of the second conductivity type and wherein a doping of the well (2,3, For example Fig. 6) in an area between the two inner contacts (9 and 10, For example Fig. 6) is different to a doping of the well (2,3, For example Fig. 6) in the areas between an inner contact and an outer contact (9,10, 8 and 11, For example Fig. 6).

With respect to claim 21, Popovic discloses wherein the contacts are arranged on a surface of a well (2,3, For example Fig. 6) of a first conductivity type that is embedded in the substrate of the second conductivity type and wherein a doping of the well (2,3, For example Fig. 6) in an area between the two inner contacts (9 and 10, For example Fig. 6) is different to a doping of the well (2,3, For example Fig. 6) in the areas between an inner contact and an outer contact (9,10, 8 and 11, For example Fig. 6).

With respect to claim 22, Popovic discloses wherein the contacts are arranged on a surface of a well (2,3, For example Fig. 6) of a first conductivity type that is embedded in the substrate of the second conductivity type and wherein a doping of the well (2,3, For example Fig. 6) in an area between the two inner contacts (9 and 10, For example Fig. 6) is different to a doping of the well (2,3, For example Fig. 6) in the areas between an inner contact and an outer contact (9,10, 8 and 11, For example Fig. 6).

With respect to claim 23, Popovic discloses wherein the contacts are arranged on a surface of a well (2,3, For example Fig. 6) of a first conductivity type that is embedded in the substrate of the second conductivity type and wherein a doping of the well (2,3, For example Fig. 6) in an area between the two inner contacts (9 and 10, For

Art Unit: 2822

example Fig. 6) is different to a doping of the well (2,3, For example Fig. 6) in the areas between an inner contact and an outer contact (9,10, 8 and 11, For example Fig. 6).

With respect to claim 24, Popovic discloses a Hall element (Figure 6) that has two inner and two outer contacts (8 and 11, For example Fig. 6) arranged along a straight line, wherein the two inner contacts (9 and 10, For example Fig. 6) are the same width and wherein the two outer contacts (8 and 11, For example Fig. 6) are the same width, wherein the contacts are arranged on a surface of a well (2,3, For example Fig. 6) of a first conductivity type that is embedded in a substrate of a second conductivity type and wherein at least one electrode (a2, For example Fig. 6) electrically insulated from the well (2,3, For example Fig. 6) is arranged between two contacts (9,10, 8 and 11, For example Fig. 6).

With respect to claim 25, Popovic discloses a Hall element (Figure 6) that has two inner and two outer contacts (8 and 11, For example Fig. 6) arranged along a straight line, wherein the two inner contacts (9 and 10, For example Fig. 6) are the same width and wherein the two outer contacts (8 and 11, For example Fig. 6) are the same width, wherein the contacts are arranged on a surface of a well (2,3, For example Fig. 6) of a first conductivity type that is embedded in a substrate of a second conductivity type and wherein a doping of the well (2,3, For example Fig. 6) in an area between the two inner contacts (9 and 10, For example Fig. 6) is different to a doping of the well (2,3, For example Fig. 6) in the areas between an inner contact and an outer contact (9,10, 8 and 11, For example Fig. 6).

With respect to claim 26, Popovic discloses a first Hall element (Figure 6) and a second Hall element (Figure 6) that each have two inner and two outer contacts (8 and 11, For example Fig. 6) arranged along a straight line, wherein the two inner contacts (9 and 10, For example Fig. 6) are the same width and wherein the two outer contacts (8 and 11, For example Fig. 6) are the same width, wherein the contacts of the first Hall element (Figure 6) are arranged on a surface of a first well (2,3, For example Fig. 6) of a first conductivity type that is embedded in a substrate of a second conductivity type, wherein the two outer contacts (8 and 11, For example Fig. 6) of the first Hall element (Figure 6) are connected via a first resistor, wherein the contacts of the second Hall element (Figure 6) are arranged on a surface of a second well (2,3, For example Fig. 6) of the first conductivity type that is embedded in the substrate, wherein the two outer contacts (8 and 11, For example Fig. 6) of the second Hall element (Figure 6) are connected via a second resistor, wherein the straight lines of both Hall element (Figure 6) run in parallel and wherein the contacts of the two Hall element (Figure 6) are wired via conductor paths in such a way that the Hall voltages of the two Hall element (Figure 6) are equidirectional.

### ***Response to Arguments***

Applicant's arguments filed 4/25/07 have been fully considered but they are not persuasive. In response to applicant's argument that the reference Popovic does not disclose that the contacts are connected by a resistor, however, note in column 7, lines 3-29 Popovic teaches that the resistors are connect by contacts (8,9,10,11).

In response to Applicant's argument that Popovic does not disclose having four contacts arranged along a straight line, Popovic teaches that the two inner contacts 9 and 10 and the two outer contacts 8 and 11 read on the structure of claims 12 and 24. The contacts are arranged on the straight line and on the surface of the substrate as shown in figure 6 of Popovic.

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tsz K. Chiu whose telephone number is 517-272-8656. The examiner can normally be reached on 0800 to 1700.



Art Unit: 2822

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Zandra V. Smith can be reached on 571-272-2429. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

TC  
July 8, 2007



**Mary Wilczewski**  
Primary Examiner